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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/646,979	08/22/2003	Ann Louise McCormack	19615	1058

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EXAMINER
MATZEK, MATTHEW D

ART UNIT	PAPER NUMBER
1771	

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05/11/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/646,979	MCCORMACK ET AL.	
	Examiner	Art Unit	
	Matthew D. Matzek	1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 February 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) *28-30* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 August 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Response to Amendment

1. The amendment dated 2/22/2007 has been fully considered and entered into the Record. The objection to claims 11 and 12 has been withdrawn due to amendment. Claims 1-27 remain active with claims 28-30 being withdrawn from prosecution.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 1-5 and 7-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heyn et al. (US 6,106,956) in view of Haffner et al. (US 6,045,900).

a. Heyn et al. teach a polymeric film comprising at least a first and second contiguous and coextruded portions, wherein the first portion contains filler to increase its water vapor permeability and the second portion serves to improve the tensile strength of the film (Abstract). The first portion (carrier resin) of the film may be made of linear low-density polyethylene copolymer (LLDPE) (col. 2, lines 52-67). It is preferred that the carrier resin contains 65 weight percent or less filler (col. 3, lines 60-65). The second portion (letdown resin) may be made of the same or different polyolefins and as with the first resin the preferred composition is LLDPE. The second portion preferably contains no filler (col. 4, lines 26-39). The LLDPE used in this film is to have a density of about 0.900 to about 0.935g/cm^3 and a melt index of about 0.1 to about 5.0 grams per 10 minutes (col. 3, lines 10-15). The applied film meets the instantly claimed moisture vapor transmission rates (col. 6, lines 49-56) for diaper backsheets. The applied reference is silent as to the use of a nonwoven support layer to be bonded to the oriented

film. Instant claim 1 requires different ethylene copolymers with a density difference of at least 0.003 g/cc between the carrier and letdown resins. Heyn et al. provide this for in that densities of the ethylene copolymers may vary from 0.900 to about 0.935g/cm^3 and that the same or different copolymers may be used in the separate phases. As stated in the abstract the polymers used in each phase have different physical properties in order for separation to occur between the two phases. If the two polymers are LLDPE, as preferred by Heyn et al., and each has the same physical properties the final product would no longer have two resin portions. Rather the article would be a LLDPE film with filler. There would be no way to distinguish the required letdown resin from the filler-containing carrier resin.

b. Haffner et al. teach a breathable barrier comprising a film layer comprising a filled film comprising about 50 to 70% calcium carbonate (col. 8, lines 23-25) and ethylene polymer (Abstract) and another layer comprising a nonwoven, spunbonded or bonded carded web layer (col. 3, lines 50-52). The laminate has a WVTR (MVTR) of more than 1500 g/m^2/day (col. 3, lines 34-37). Example 1 teaches the use of calcium carbonate (filler), LLDPE [carrier resin] (density of 0.918 g/cm^3 and a melt index of 3.5 g/10 min) and a LDPE [letdown resin] (density of 0.916 g/cm^3 and a melt index of 12 g/10 min). Examiner takes the position that the filler is necessarily contained within the carrier resin phase as the filler is mixed with the carrier resin and then formed into a layer. Haffner et al. teach the blending of LLDPE with densities desirably ranging from 0.86-0.88 g/m^3 with a second polyethylene ranging from 0.90 to 0.95 g/m^3 (col. 9, lines 1-5 and col. 10, lines 1-11) to form an intermediate layer that may also contain filler that

is similar in type and content to that of the breathable layer (col. 10, lines 48-58). This provides for density differences of up to 0.09 g/cm^3.

c. The basis weight of the film layer desirable ranges from 15-35 g/m^2 (col. 10, lines 59-64). An extensive list of ethylene (polyolefin) polymers has been disclosed including linear low-density polyethylene (LLDPE) (col. 7, line 49 – col. 8, line 8). The nonwoven layer may comprise spunbonded and bonded carded webs (col. 3, lines 46-52).

d. Claims 17 and 18 are rejected as the nonwoven woven layer may comprise multilayer nonwoven laminates (col. 11, lines 4-10). Claims 19 and 20 are rejected as the film layer may comprise multiple layers **12** (Fig. 1). Haffner et al. teach a WVTR in excess of 1500 g/m^2/day. This anticipates the breathability of instant claim 23. Claim 25 is rejected as the base layer **14** comprises from about 50% to about 98% of the multilayer film thickness (col. 10, lines 66-67). Claims 26 and 27 are rejected as the breathable barrier of Haffner et al. may be used in garments and personal care products (col. 1, lines 14-17).

e. It is noted herein that the teachings of Haffner et al. include WVTR in excess of 1500 g/m^2/day. It is the Examiner's interpretation that such a teaching encompasses the ranges of 5,000 and 10,000 g/m^2/day as claimed herein. The use of material with high WVTR is recognized in the art of breathable barriers as it is evidenced herein by Haffner et al. The larger the WVTR value the greater the ability for the article to allow water vapor to be expelled from the article. This is highly desirable as the article is intentionally created for its breathability.

f. Since Heyn et al. and Haffner et al. are from the same field of endeavor (i.e. filler filled LLDPE films), the purpose disclosed by Haffner et al. would have been recognized in the pertinent art of Heyn et al.

g. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to have bonded the film of Heyn et al. to the support layer of Haffner et al. as well as make the article according to the basis weights and density and melt flow index differences of Haffner et al. The skill artisan would have been motivated by the desire to create a breathable article that is capable of being used in personal absorbent articles.

3. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Heyn et al. (US 6,106,956) in view of Haffner et al. (US 6,045,900) as applied to claim 1 above, and further in view of Brady et al. (US 6,258,308). The inventions of Heyn et al. and Haffner et al. are silent as to the use of an ethylene with a melt index of at least 20g/10min.

a. Brady et al. teach the creation of breathable polyolefin films comprising filler (Abstract). It was found that the addition of small amounts of Low-density polyethylene with a Melt Index of 0.9 to 25 and a density of 0.900 g/cm^3 may be used and that it allows higher throughput levels with little or no reduction in film breathability (col. 9, lines 29-35). Calcium carbonate is the particularly preferred filler (col. 10, lines 59-65).

b. Since Heyn et al. and Brady et al. are from the same field of endeavor (i.e. calcium carbonate filled LLDPE films), the purpose disclosed by Haffner et al. would have been recognized in the pertinent art of Heyn et al.

h. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to have bonded the film of Heyn et al. to the support layer of Haffner et al. as well as make the article according to the basis weights of Haffner et al. The skill artisan would have been motivated by the desire to create a breathable article that is capable of being used in personal absorbent articles.

Double Patenting

4. Claims 1-27 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 22-30 of copending Application No. 10/703,761. Although the conflicting claims are not identical, they are not patentably distinct from each other because both articles are directed to breathable laminates of polyethylene with common densities and melt indices with the filler located in discreet regions of a carrier resin separate from a letdown resin phase.

5. Claims 1-27 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 30-33 and 37-43 of copending Application No. 10/918,553. Although the conflicting claims are not identical, they are not patentably distinct from each other because both articles are directed to breathable laminates of polyethylene with common densities and melt indices with the filler located in discreet regions of a carrier resin separate from a letdown resin phase.

Response to Arguments

6. Applicant's arguments filed 2/22/2007 have been fully considered but they are not persuasive.

7. Applicant argues that while the disclosure of Heyn et al. allow the densities of the ethylene copolymers to vary, Heyn et al. fails to suggest or disclose which of the two phases must have the greater density. Examiner has relied upon Heyn et al. to teach LLDPE resins that possess the claimed densities of both the letdown and carrier phases and to teach that the two resin phases possess differing physical properties. Examiner has relied upon Haffner et al. teach the formation of a base layer preferably comprising LLDPE (col. 8, lines 5-8) and filler and then mixed with other components (col. 7, lines 35-40). In Example 1, LLDPE, the preferred carrier resin, has a greater density than the letdown resin, LDPE. Therefore, Haffner et al. teach the use of a denser carrier resin compared to the letdown resin. As pointed out *supra*, Haffner et al. provide for a density difference between polymeric resins of up to 0.09 g/cm^3.

8. Applicant argues that if Heyn et al. appreciated that the different ethylene polymer or copolymer of the carrier phase should have a density at least about 0.003 g/cc greater than the density of the letdown resin, Heyn et al. would not have suggested that the same ethylene polymer or copolymer can be used for both the carrier and letdown phases. As pointed in Heyn's abstract there is a need for the second polymer to have different physical properties than those of the first polymer. Haffner et al. have been relied upon to teach the density differences between the two phases.

9. Applicant argues that since they have demonstrated advantages from the particular formulations being claimed the burden shifts to the Office to demonstrate that the prior art recognized that these advantages could be obtained from these particular formulations. Examiner has demonstrated that the instantly claimed article has been rendered obvious in light of the applied prior art. In response to applicant's argument that the references fail to show

certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., improved film formation resulting in a film/nonwoven laminate with increased cross-machine direction [CD] extensibility and integrity) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

10. Applicant has provided sections of a previous Office Action that described Haffner et al. as means to demonstrate that Haffner et al. fail to overcome the deficiencies of Heyn et al. Examiner agrees that Example 1 of Haffner et al. fail to teach a density difference of at least 0.03g/cc between the carrier and letdown phases. However, taking the reference in as a whole it does provide for density differences of up to 0.09 g/cc between polymeric phases and furthermore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have had a density difference of at least 0.003 g/cc between the carrier and letdown phases of Haffner et al., since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

11. Applicant argues that Examiner apparently agrees that the density variation should be 0.002 g/cc because the basis weights of Haffner et al. yield a density difference of only 0.002 g/cc, making the article of Haffner et al. have a density difference of 0.002 g/cc, which is not greater than 0.003 g/cc. This argument is not germane to subject at hand. The density difference is between two polymer phases within the same layer, not between layers. The phases can have the claimed density difference, while at the same time still being of the basis weights of Haffner

et al. Furthermore, density is a measure of mass per volume, while basis weight is mass per area. While, each may impact the other, one can be altered independently.

12. Applicant argues that the invention of Brady et al. is not constructed in the same manner as the oriented film of claim 6 with substantially all of the filler contained only within discrete regions of the carrier resin phase leaving the letdown void of filler and that the Brady et al. reference was only used to select a single feature to reject the limitation set forth in claim 6. Heyn et al. have set forth the structure of the claimed oriented film. Examiner has relied upon Brady et al. to teach that a range of LDPEs with broader Melt Indices may be used successfully to form a breathable film comprising calcium carbonate for use in absorbent articles.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew D. Matzek whose telephone number is 571.272.2423. The examiner can normally be reached on M-F, 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571.272.1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

mdm MDM

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